

## Abstract of the Invention

Methods and components are provided which ensure both the improved use of network resources and adequate performance of best effort (BE) traffic by intelligently distributing the

5 BE traffic demands at connection level with corresponding scaling weights, and without reserving bandwidth. A weighted sum of the best effort (BE) class connections (or LSPs in MPLS context) in a link is used as a path selection criterion, where each BE connection is weighted by its service volume. Path

10 selection for a requested BE service volume is performed by creating a virtual topology in which all links in a network have weighted BE metrics updated to include the effects of the requested BE service volume, and identifying a best path through the virtual topology taking into account the weighted

15 BE metrics.